hypoglycemia events (ICD-9-CM 250.8×, 251.0×, 251.1×, 251.2×) were identified. Annual total, medical, pharmacy, and diabetes-related costs for patients with or without the diagnosis of hypoglycemia were compared during the 12-month post-index period. Diabetes-related medical costs included all non-pharmacy costs associated with T2DM diagnosis. Generalized linear regressions with robust standard error accounting for skewed cost distribution were performed, adjusting for demographics, comorbidities, and OADs. **RESULTS:** A total of 212,061 T2DM patients with at least one OAD treatment were identified. Among them, 4860 (2.29%) had a hypoglycemia diagnosis during the first year following the index date. Patients with hypoglycemia had significantly higher average annual total costs ($18,273 vs. $8908, $P < 0.001$) and diabetes-related total costs ($8969 vs. $3220, $P < 0.001$) than those without hypoglycemia. After adjusting for confounding factors, hypoglycemia patients had significantly higher incremental annual total costs and diabetes-related total costs than patients without hypoglycemia ($5031 and $3751, respectively, both $P < 0.001$). Similar trends were observed for annual medical costs and diabetes-related medical costs ($4967 and $3796, respectively, both $P < 0.001$). **CONCLUSIONS:** Hypoglycemia in type 2 diabetes patients initiated with OADs in a large US managed care setting is associated with significantly higher total, medical, and diabetes-related costs compared with those who did not experience hypoglycemia.

PDB6

THE DISEASE BURDEN ANALYSIS OF 295 INPATIENTS WITH DIABETES MELLITUS FROM TONGJI HOSPITAL IN CHINA

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OBJECTIVES: This study was to examine the prevalence and economic burden of in patients with diabetes and/or related complications from Tingyi hospital in Wuhan China. **METHODS:** This was a retrospective analysis focused on hospitalization costs and complications for all patients diagnosed with diabetes and administered in Wuhan Tingyi hospital in China from June 2007 to December 2007. All information of patient demographic characters, clinical and costs were collected for the analysis. The descriptive statistics was used to describe patients' demographic characters, duration of the diseases and treatment costs. **RESULTS:** There were total of 295 inpatients were included in the study. The mean age of patients was 51.6 ± 16.0 years (range 11–87 years), 53.56% were male. The diabetes durations (±SD) were 5.75 ± 6.04 years. 13.56% were type 1 diabetes, and 86.44% were type 2 diabetes. The mean hospital stay (±SD) were 11.99 days (±0.54), and mean of hospitalization costs (±SD) were USD 876.6 (±39.4) (1US$ = 7.6 RMB). The patients with no complication, micro vascular complications, macro vascular complications or both were 10.20%, 30.27%, 8.16%, and 51.36% respectively. Peripheral neuropathy (69.2%) and hyperlipidemia (64.1%) were of the highest prevalence among all the complications, and diabetic foot ulcer was the expensive complication with the highest treatment costs (USD657). The costs of tests and medications accounted for 27% and 26% of total hospitalization expenses. Anti–diabetes drugs, complication treatments and other drugs were of 37.7%, 52.8%, and 9.4% respectively in the medication costs. **CONCLUSIONS:** Most of hospitalized patients had diabetes complications. Diabetic complications contributed to a substantial economic burden for the patients and society. It implied the urgent need for health-care policymakers to address this issue by adopting effective measures toward prevention and control of diabetes and its complications.

PDB7

ESTIMATED COSTS OF INCLUDING GROWTH HORMONE REPLACEMENT THERAPY INTO THE UNIVERSAL COVERAGE BENEFIT PACKAGE IN THAILAND

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BACKGROUND: Growth hormone replacement therapy (GHRT) is an expensive health service excluded from the universal coverage (UC) benefit package of Thailand. Its high costs and exclusion from the UC benefit package prevent poor patients from access to such health care. **OBJECTIVES:** This study aims to estimate costs of providing GHRT to patients diagnosed with growth hormone deficiency (GHD). It also explores demand for, and supply of, and total costs per unit of height increase from universal access to GHRT. **METHODS:** Methods include comprehensive literature review, in-depth interviews of childhood endocrinologists from three university hospitals about costs of GHRT and its current practice, and modeling costs for height increase using different products. **RESULTS:** Research findings indicate the incidence of GHD in Thailand is approximately 1 to 50,000 of people aged less than 15 years. A weekly dosage of GHRT recommended by the Thai Pediatric Endocrine Society range from 0.1 to 0.3 mg per kg depending on patient's responses. Cessation criteria of GHRT comprise 1) attainment of adult height at 165 and 155 cm in male and female, respectively; 2) bone age above 16 and 14 years in male and female respectively; and 3) the annual increase of height lower than 2.5 cm. On supply side, approximately 40 pediatric endocrinologists are available in public and private settings across the country. Costs of GHRT are varied from factors including patient's age and gender, type and dose of GH use. Data from a university hospital show costs of GHRT range from $950 to $2580 per every 1 cm of height increase when using a cheaper GH product. The costs will increase from $1460 to $4000 per every 1 cm of height increase when using the original GH. **CONCLUSIONS:** High cost burden of GHRT poses a challenging question on whether it should be included in the UC benefit package.

PDB8

COST-EFFECTIVENESS OF SWITCHING PATIENTS EITH TYPE 2 DIABETES FROM INSULIN GLARGINE TO INSULIN DETEMIR IN A CHINESE SETTING: A HEALTH ECONOMIC MODEL BASED ON THE PREDICTIVE STUDY

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OBJECTIVES: To evaluate the long-term health outcomes and economic consequences of the treatment of Insulin Detemir (IDet) in type 2 diabetes patients switching from insulin Glargine (IGla) in the setting of Chinese urban hospitals. **METHODS:** A published and validated computer simulation model of diabetes (the CORE Diabetes Model) was used to make the long- term (30 years) projection of health economic outcomes. The patient demographic information and clinical endpoints were derived from the PREDICTIVE subgroup study. The study was a large, multi-center, 6 months observational study assessing the safety and efficacy of IDet in everyday clinical practice. HbA1c was reduced of –0.59% by switching from IGla to IDet. Baseline risk factors and racial characteristic data were obtained from Chinese cohort studies. The market retail prices of medications were calculated to estimate treatment costs. The diabetes management and complications costs were obtained from Chinese published data and adjusted to 2009 values using the Chinese Consumer Price Index. An annual discounting rate of 3% was used for both health and cost outcomes. One-way sensitivities analysis was performed and illustrated that the results were robust. **RESULTS:** The treatment of IDet converted from IGla was projected to reduce the cumulative incidences of Eye disease, Renal disease, Ulcer, Cardiovascular disease, Cataract, End-Stage Renal Disease, Ulcer, Neuropathy, Myocardial Infarction events were reduced 0.293%, 0.151%, 0.794%, 3.293%, 1.225% respectively. Patients' time alive and free of complication was improved 0.15 year. Patient life expectancy was increased by 0.09 year and 0.36 quality adjusted life-year (QALY) when converting to IDet. The costs of complications were reduced by 4931 CNY (89,628 vs. 94,559), resulting in a total direct medical cost saving of 684 CNY. **CONCLUSIONS:** The treatment of IDet improved patient health and economic outcomes, and was a cost-saving treatment approach in a Chinese setting.

PDB9

COST-EFFECTIVENESS OF CSII IN CHINA

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OBJECTIVES: To estimate the long term clinical and cost outcomes of continuous subcutaneous insulin infusion (CSII) compared with multiple daily injections (MDI) of insulin in adult type 1 diabetes mellitus (T1DM) patients from a third party payer perspective in China. **METHODS:** A previously validated computer simulation model of diabetes (CORE Diabetes Model) was used to estimate the long-term clinical and cost consequences of CSII to MDI in the Chinese consumer-use setting and to calculate the incremental cost-effectiveness ratio (ICER). Clinical and cost data as well as treatment effects and patient characteristics were obtained from previously published studies. Costs and clinical projections were made over patient lifetimes from a third-party payer perspective and discounted at 3% annually. The primary input variable was change in HbA1c and was assumed to be an improvement of –1.2% for CSII compared with MDI. **RESULTS:** CSII was associated with improvements of 1.037 in quality adjusted life-years (QALYs) gained and 0.963 life-years gained per patient versus MDI. CSII was associated with an incremental cost-effectiveness ratio (ICER) of CNY 214,988 per QALY gained for CSII versus MDI. Improved glycemic control from CSII led to a lower incidence of lifetime diabetes complications; with the most significant reductions in proliferative diabetic retinopathy (PDR; a 29% reduction), end stage renal disease (ESRD; a 22% reduction) and peripheral vascular disease (PVD; a 15% reduction). CSII was associated with increased direct lifetime medical costs of Chinese Yuan (CNY) 222,994 per patient compared to MDI. **CONCLUSIONS:** For type 1 diabetes patients in China, CSII (consumer-use) would be considered cost-effective assuming a willingness-to-pay threshold of CNY 235,000 per QALY gained.

PDB10

LOWER EXTREMITY AMPUTATION PREVENTION (LEAP) IN SINGAPORE: ECONOMIC ANALYSIS OF RESULTS

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OBJECTIVES: The LEAP is a multidisciplinary management program (including angioplasty, bypass surgery and medical treatment) designed to enhance limb salvage for patients with diabetes and critical limb ischemia (CLI). This study aims to determine the cost-effectiveness of the LEAP strategy compared with the pre-LEAP strategy (standard practice) for treating patients with diabetes and CLI. **METHODS:** Clinical data relating to 277 patients in the LEAP were collected from 2001 until 2005. Comparative data were retrospectively collected for 144 patients with diabetes and CLI referred to the hospital in 2000. A lack of follow-up data in the pre-LEAP group restricted this study to the inpatient period. Significance of differences in therapeutic